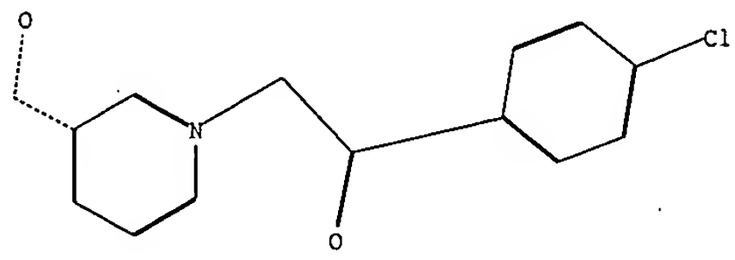
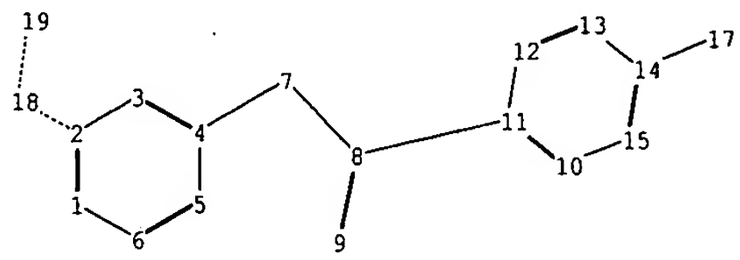
C:\Program Files\Stnexp\Queries\10036857.str





chain nodes :
7 8 9 17 18 19
ring nodes :
1 2 3 4 5 6 10 11 12 13 14 15
chain bonds :
2-18 4-7 7-8 8-9 8-11 14-17 18-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15
exact/norm bonds :
2-18 4-7 8-9 18-19
exact bonds :
7-8 8-11 14-17
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15
isolated ring systems :
containing 1 : 10 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 17:CLASS 18:CLASS 19:CLASS

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1611hxl

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Apr 08	"Ask CAS" for self-help around the clock
NEWS	3	Jun 03	New e-mail delivery for search results now available
NEWS	4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	7	Sep 03	JAPIO has been reloaded and enhanced
NEWS	8	Sep 16	Experimental properties added to the REGISTRY file
NEWS	9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	11	Oct 24	BEILSTEIN adds new search fields
NEWS	12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	13	Nov 18	DKILIT has been renamed APOLLIT
NEWS	14	Nov 25	More calculated properties added to REGISTRY
NEWS	15	Dec 04	CSA files on STN
NEWS	16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	17	Dec 17	TOXCENTER enhanced with additional content
NEWS	18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS	20	Feb 13	CANCERLIT is no longer being updated
NEWS	21	Feb 24	METADEX enhancements
NEWS	22	Feb 24	PCTGEN now available on STN
NEWS	23	Feb 24	TEMA now available on STN
NEWS	24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS	25	Feb 26	PCTFULL now contains images
NEWS	26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS	27	Mar 19	APOLLIT offering free connect time in April 2003
NEWS	28	Mar 20	EVENTLINE will be removed from STN
NEWS	29	Mar 24	PATDPAFULL now available on STN
NEWS	30	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS	31	Mar 24	Indexing from 1957 to 1966 added to records in CA/CAPLUS
NEWS	32	Apr 11	Display formats in DGENE enhanced
NEWS	33	Apr 14	MEDLINE Reload
NEWS	34	Apr 17	Polymer searching in REGISTRY enhanced

NEWS EXPRESS	April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items

```
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
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  * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *


FILE 'HOME' ENTERED AT 14:32:14 ON 17 APR 2003

=> fil reg
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'REGISTRY' ENTERED AT 14:32:27 ON 17 APR 2003
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STRUCTURE FILE UPDATES:   16 APR 2003  HIGHEST RN 503266-82-8
DICTIONARY FILE UPDATES:  16 APR 2003  HIGHEST RN 503266-82-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

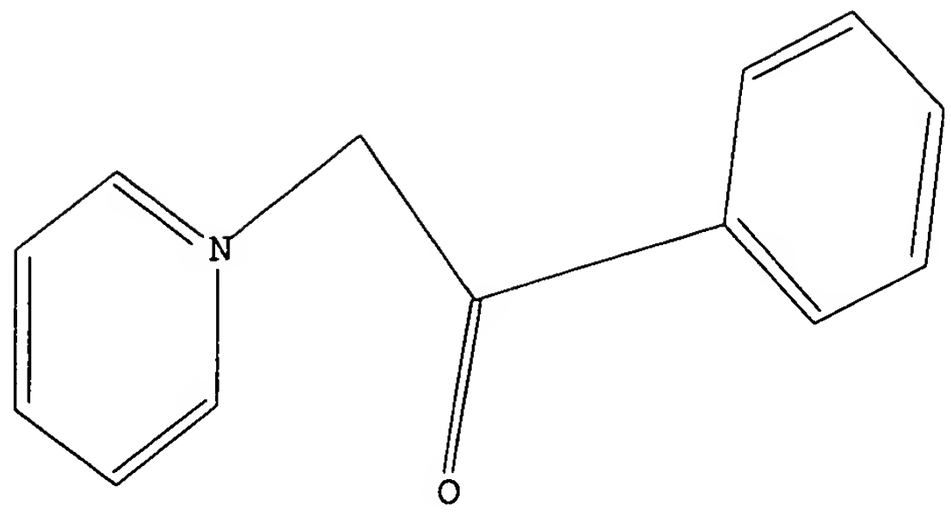
Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
Uploading 10036857.str

L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1                STR
```



Structure attributes must be viewed using STN Express query preparation.

```
=> s l1
SAMPLE SEARCH INITIATED 14:32:42 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   626 TO ITERATE

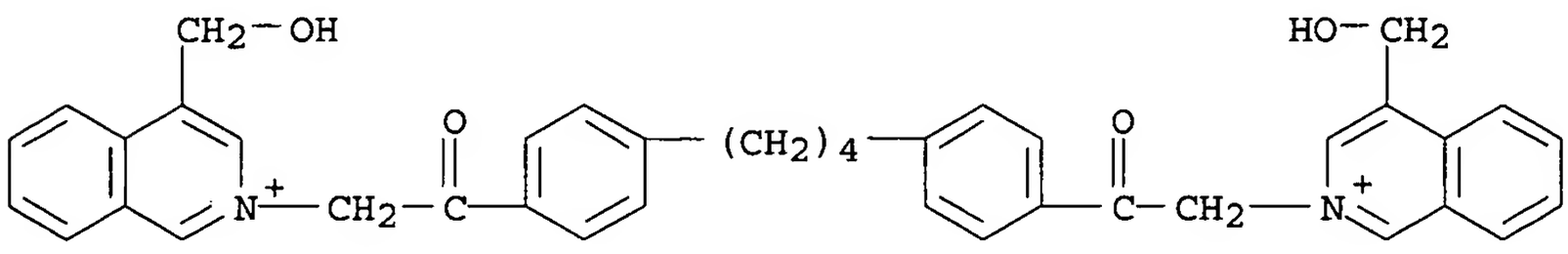
100.0% PROCESSED     626 ITERATIONS                          50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:        11019 TO    14021
PROJECTED ANSWERS:            2654 TO     4226

L2            50 SEA SSS SAM L1

=> d scan
```

L2 50 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Isoquinolinium, 2,2'-[1,4-butanediylbis[4,1-phenylene(2-oxo-2,1-ethanediyl)]]bis[4-(hydroxymethyl)-, dibromide (9CI)
MF C40 H38 N2 O4 . 2 Br



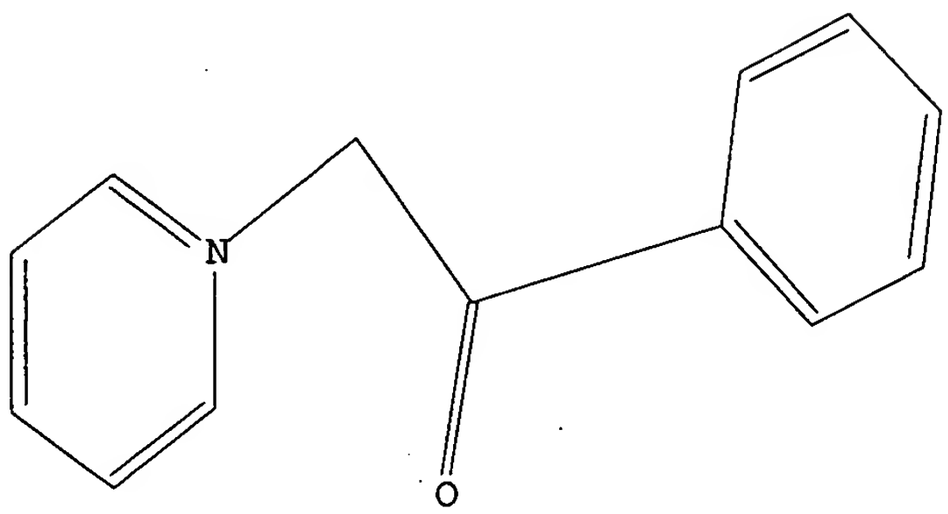
●2 Br⁻

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

```
=>
Uploading 10036857.str

L3       STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3                 STR
```




```
Structure attributes must be viewed using STN Express query preparation.


=> s l3
SAMPLE SEARCH INITIATED 14:33:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    626 TO ITERATE

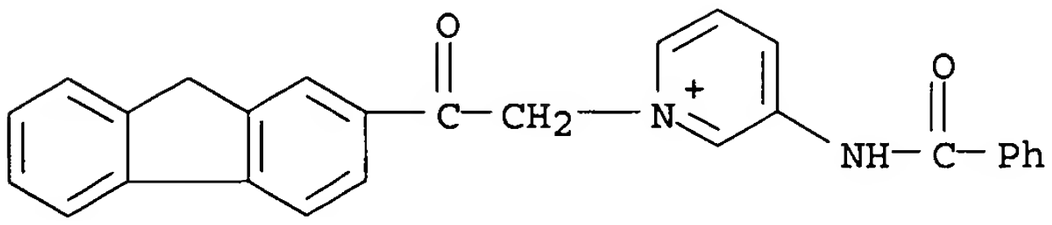
100.0% PROCESSED     626 ITERATIONS                          50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:        11019 TO    14021
PROJECTED ANSWERS:            1934 TO     3306

L4            50 SEA SSS SAM L3

=> d scan
```

L4 50 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Pyridinium, 3-(benzoylamino)-1-[2-(9H-fluoren-2-yl)-2-oxoethyl]- (9CI)
MF C27 H21 N2 O2
CI COM

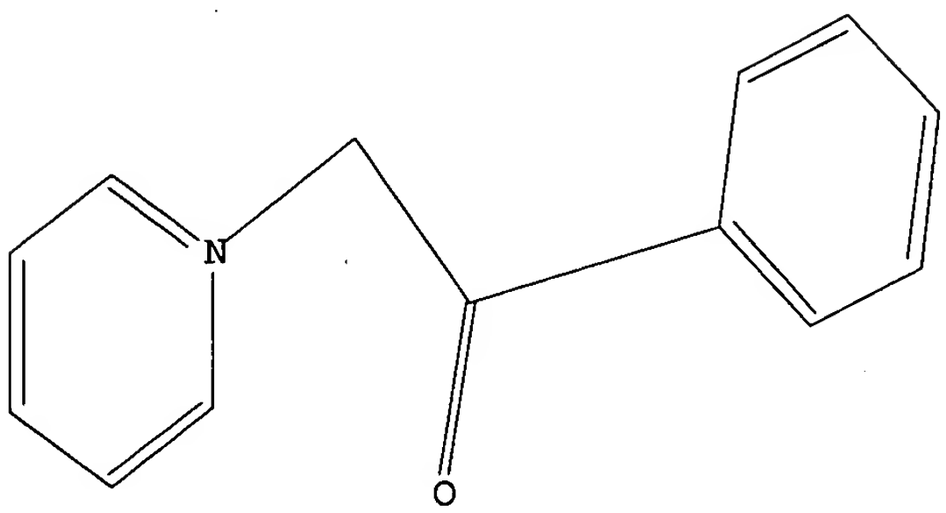


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

```
=>
Uploading 10036857.str

L5      STRUCTURE UPLOADED

=> d l5
L5 HAS NO ANSWERS
L5                STR
```




```
Structure attributes must be viewed using STN Express query preparation.


=> s l5
SAMPLE SEARCH INITIATED 14:34:10 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    626 TO ITERATE

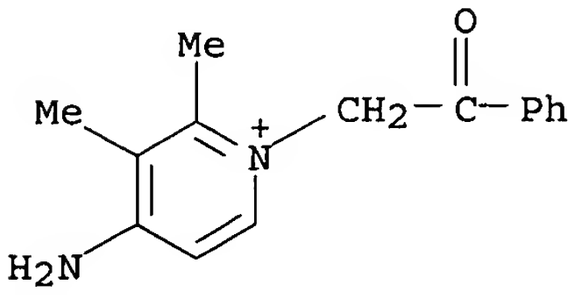
100.0% PROCESSED     626 ITERATIONS                          50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.02

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        11019 TO    14021
PROJECTED ANSWERS:            1778 TO     3102

L6            50 SEA SSS SAM L5

=> d scan
```

L6 50 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Pyridinium, 4-amino-2,3-dimethyl-1-(2-oxo-2-phenylethyl)- (9CI)
MF C15 H17 N2 O

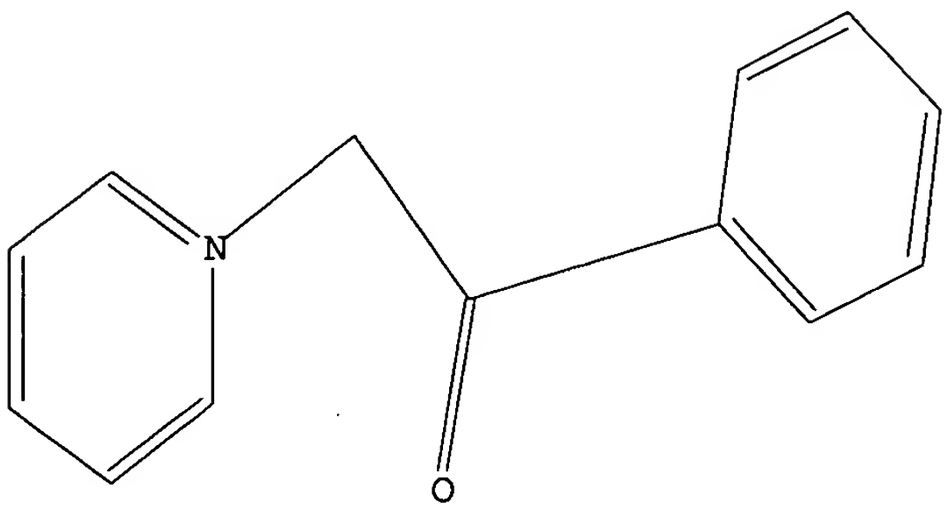


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=>
Uploading 10036857.str

L7 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR

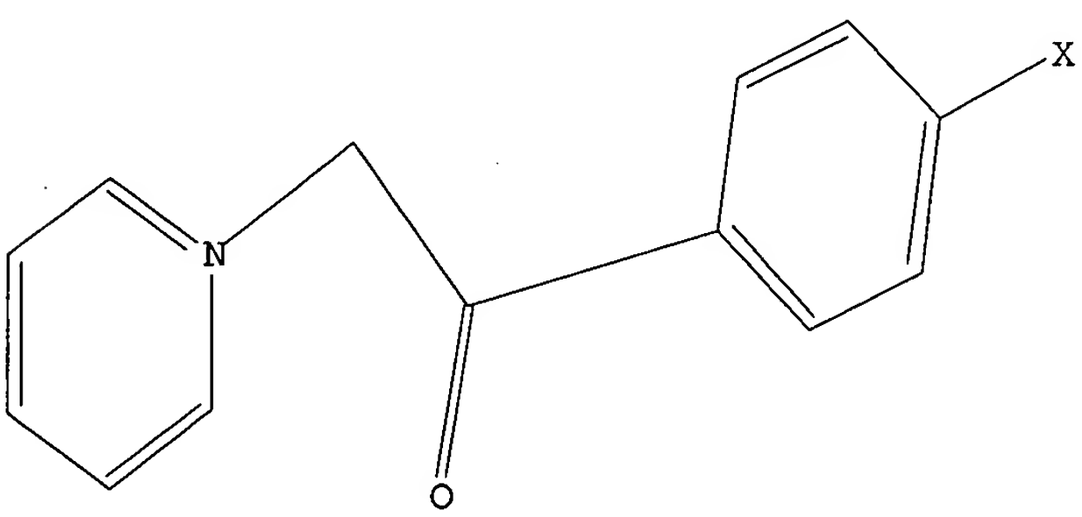


Structure attributes must be viewed using STN Express query preparation.

=>
Uploading 10036857.str

L8 STRUCTURE UPLOADED

=> d l8
L8 HAS NO ANSWERS
L8 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l8
SAMPLE SEARCH INITIATED 14:47:46 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 165 TO ITERATE

100.0% PROCESSED 165 ITERATIONS 24 ANSWERS
SEARCH TIME: 00.00.01

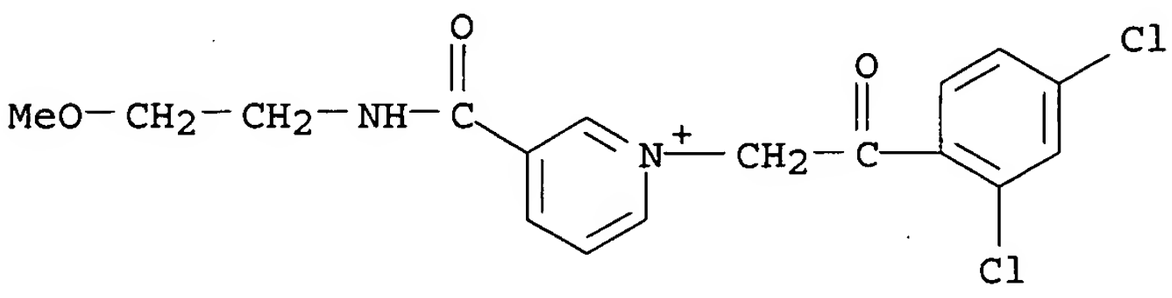
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

```
PROJECTED ITERATIONS:          2530 TO     4070
PROJECTED ANSWERS:              187 TO      773

L9            24 SEA SSS SAM L8

=> d scan
```

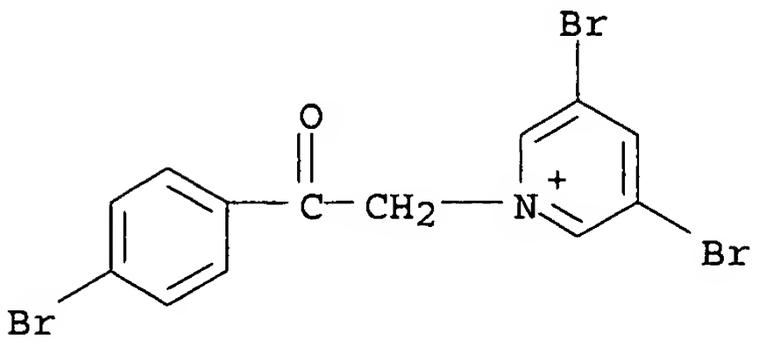
L9 24 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[(2-methoxyethyl)amino]carbonyl]-, bromide (9CI)
MF C17 H17 Cl2 N2 O3 . Br



● Br^-

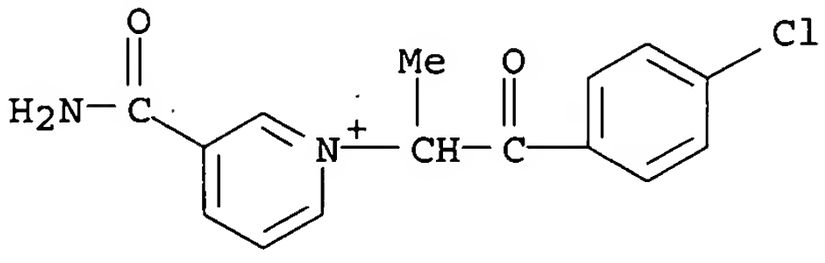
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L9 24 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Pyridinium, 3,5-dibromo-1-(p-bromophenacyl)-, bromide (8CI)
MF C13 H9 Br3 N O . Br



● Br^-

L9 24 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Pyridinium, 3-(aminocarbonyl)-1-[2-(4-chlorophenyl)-1-methyl-2-oxoethyl]-(9CI)
MF C15 H14 Cl N2 O2
CI COM

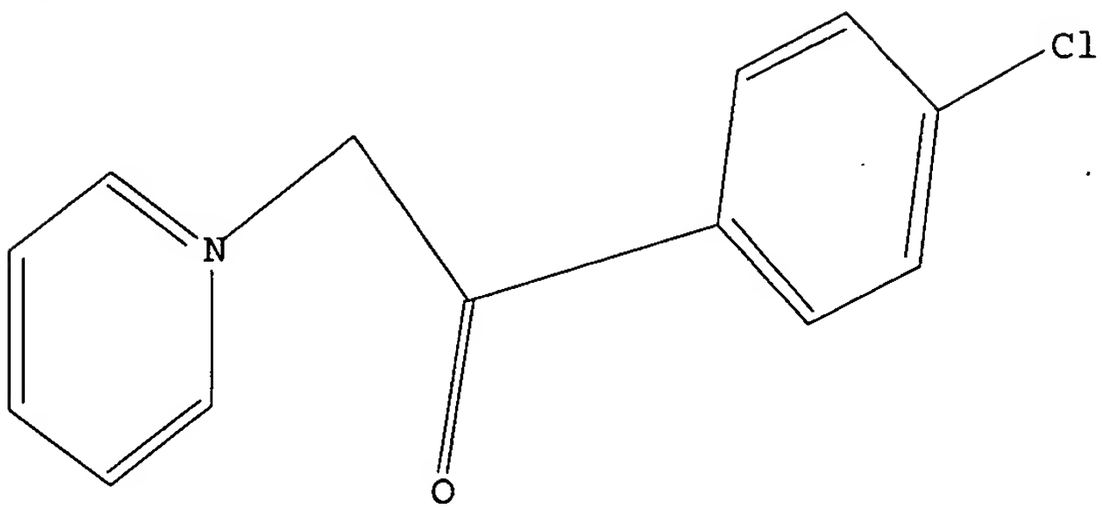


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=>
Uploading 10036857.str

L10 STRUCTURE UPLOADED

=> d l10
L10 HAS NO ANSWERS
L10 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l10
SAMPLE SEARCH INITIATED 14:49:01 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 51 TO ITERATE

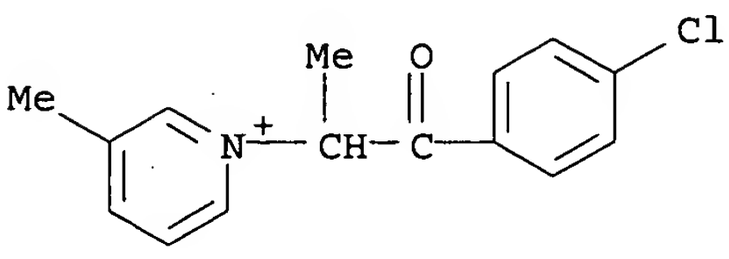
100.0% PROCESSED 51 ITERATIONS 11 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 592 TO 1448
PROJECTED ANSWERS: 22 TO 418

L11 11 SEA SSS SAM L10

=> d scan

L11 11 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Pyridinium, 1-[2-(4-chlorophenyl)-1-methyl-2-oxoethyl]-3-methyl-, bromide (9CI)
MF C15 H15 Cl N O . Br



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

```
=> s l10 ful
FULL SEARCH INITIATED 14:49:25 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   1078 TO ITERATE

100.0% PROCESSED    1078 ITERATIONS                          144 ANSWERS
SEARCH TIME: 00.00.01

L12          144 SEA SSS FUL L10

=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                              158.95     159.16

FILE 'CAPLUS' ENTERED AT 14:49:31 ON 17 APR 2003
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FILE COVERS 1907 - 17 Apr 2003  VOL 138 ISS 16
FILE LAST UPDATED: 16 Apr 2003  (20030416/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l12
L13          97 L12

=> fil reg
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               0.83     159.99

FILE 'REGISTRY' ENTERED AT 14:50:46 ON 17 APR 2003
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STRUCTURE FILE UPDATES:   16 APR 2003  HIGHEST RN 503266-82-8
DICTIONARY FILE UPDATES:  16 APR 2003  HIGHEST RN 503266-82-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.
```

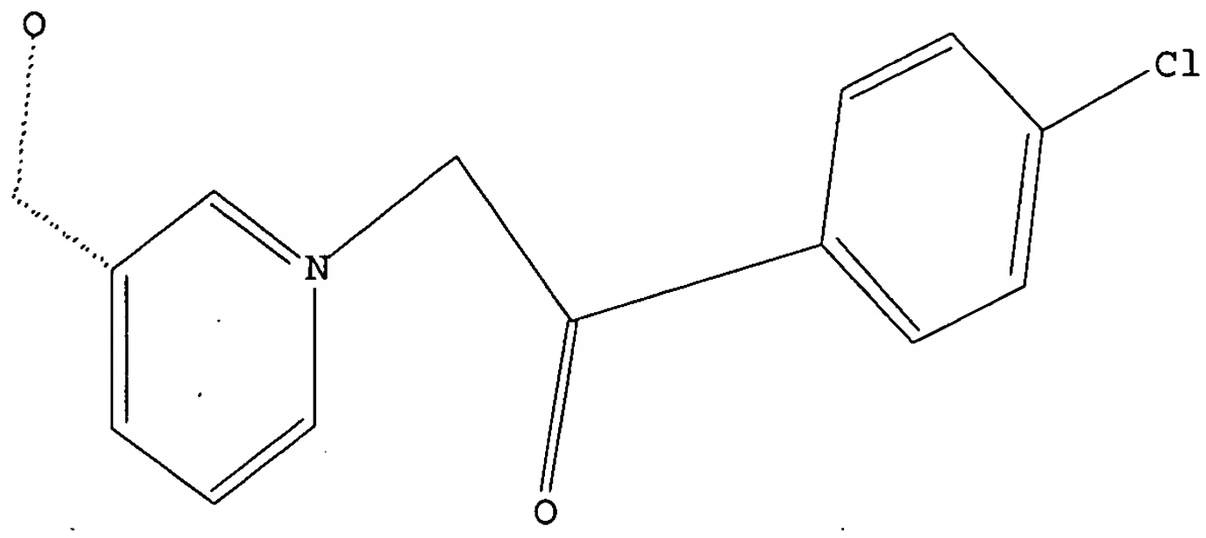
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
Uploading 10036857.str

L14 STRUCTURE UPLOADED

=> d l14
L14 HAS NO ANSWERS
L14 STR



Structure attributes must be viewed using STN Express query preparation.

=> d his

(FILE 'HOME' ENTERED AT 14:32:14 ON 17 APR 2003)

FILE 'REGISTRY' ENTERED AT 14:32:27 ON 17 APR 2003
L1 STRUCTURE UPLOADED
L2 50 S L1
L3 STRUCTURE UPLOADED
L4 50 S L3
L5 STRUCTURE UPLOADED
L6 50 S L5
L7 STRUCTURE UPLOADED
L8 STRUCTURE UPLOADED
L9 24 S L8
L10 STRUCTURE UPLOADED
L11 11 S L10
L12 144 S L10 FUL

FILE 'CAPLUS' ENTERED AT 14:49:31 ON 17 APR 2003
L13 97 S L12

FILE 'REGISTRY' ENTERED AT 14:50:46 ON 17 APR 2003
L14 STRUCTURE UPLOADED

=> s l14 ful sub=l12
FULL SUBSET SEARCH INITIATED 14:51:24 FILE 'REGISTRY'

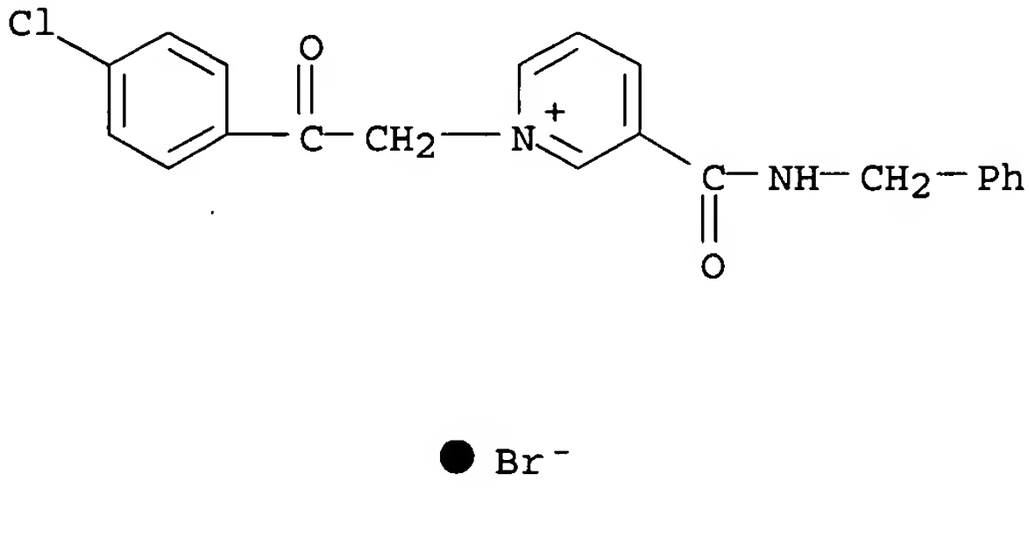
FULL SUBSET SCREEN SEARCH COMPLETED - 26 TO ITERATE

100.0% PROCESSED 26 ITERATIONS 26 ANSWERS
SEARCH TIME: 00.00.01

L15 26 SEA SUB=L12 SSS FUL L14

=> d scan

L15 26 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Pyridinium, 1-[2-(4-chlorophenyl)-2-oxoethyl]-3-[[(phenylmethyl)amino]carbonyl]-, bromide (9CI)
MF C21 H18 Cl N2 O2 . Br



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):fil caplus
'FIL CAPLUS' IS NOT VALID HERE

To display more answers, enter the number of answers you would like to see. To end the display, enter "NONE", "N", "0", or "END".
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

```
=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               35.70     195.69

FILE 'CAPLUS' ENTERED AT 14:51:45 ON 17 APR 2003
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```



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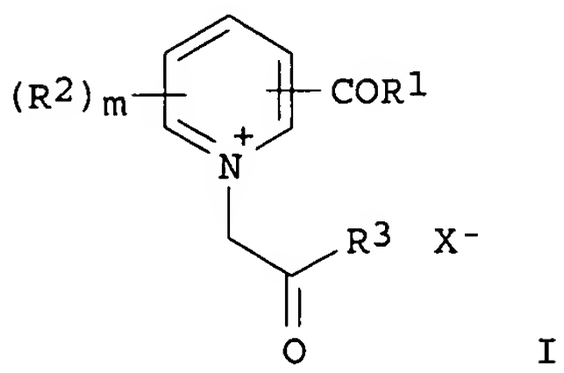
FILE COVERS 1907 - 17 Apr 2003  VOL 138 ISS 16
FILE LAST UPDATED: 16 Apr 2003  (20030416/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l15
L16          12 L15

=> d abs ibib hitstr 1-
YOU HAVE REQUESTED DATA FROM 12 ANSWERS - CONTINUE? Y/(N):y
```

L16 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS
GI



I

AB Title compds. [I; R1 = R4R5, NR7NR7R9; R2 = F, Cl, Br, iodo, acyl, CONR7R10, CO2R7, NR7R10, SR7, etc.; R3 = R7, OR7, NR7R10, N:CR7R10, etc.; R4 = NR7R6O, NR7R6NR7, OR6O, OR6NR7; R6 = alkyl; R5 = alkyl aryl, heteroaryl, COR7, SO2R7, CSNHR7, C(NH)NHR7, COR10, etc.; R7 = H, alkyl, aryl, heteroaryl; R9 = H, alkyl, aryl, heteroaryl, COR10, SO2R10, etc.; R10 = H, alkyl, aryl, heteroaryl; X = halide, OAc, ClO4, BF4, PF6, etc.; m = 0-2; with provisos], were prepd. Thus, N,N'-bis(nicotinyl)hydrazine and phenacyl bromide were refluxed 6 h in MeOH/iPrOH to give 60% N,N'-bis[3-carbonyl-1-(2-phenyl-2-oxoethyl)pyridinium]hydrazine dibromide. Tested I gave 13-92.64% advanced glycation end product (AGE) breaking at 1-50 mM. Novel compds. of the pyridinium series useful for the management of diabetes and aging-related vascular and neurovascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, inflammatory disorders, immunol. disorders, oxidative stress, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, of the general formula I, or pharmaceutically acceptable salts thereof, wherein, R1, R2, R3, X and m are as defined in the specification.

ACCESSION NUMBER: 2003:118597 CAPLUS
DOCUMENT NUMBER: 138:153445
TITLE: Preparation of N-oxoethylpyridinium compounds for the management of age-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India
SOURCE: U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of U. S. Ser. No. 801,778, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003032660	A1	20030213	US 2001-939702	20010828
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6462057	B1	20021008	US 2000-598410		20000621
US 2001018524	A1	20010830	US 2001-801778		20010309
US 2002103228	A1	20020801	US 2001-995731		20011129

PRIORITY APPLN. INFO.:

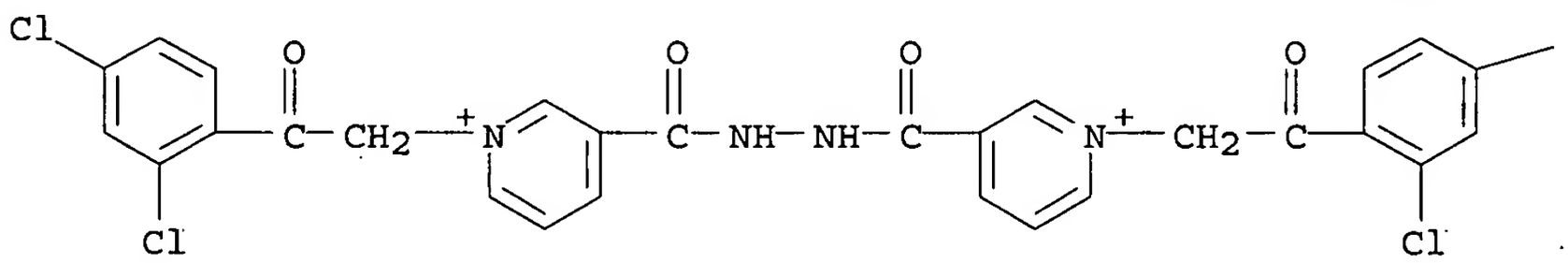
IN 1999-CA828	A	19991006
WO 1999-IB1683	A2	19991015
US 2000-598410	A2	20000621
US 2001-801778	B2	20010309
IN 1999-CA827	A	19991006
WO 1999-IB1687	A1	19991015
US 2000-590143	A2	20000609
US 2001-939702	A1	20010828

OTHER SOURCE(S): MARPAT 138:153445

IT **333797-92-5P 333797-97-0P 357625-28-6P**
357625-43-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(claimed compd.; prepn. of N-oxoethylpyridinium compds. for the management of age-related and diabetic vascular complications)

RN 333797-92-5 CAPLUS
CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-, dibromide (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Br^-

PAGE 1-B

RN 333797-97-0 CAPLUS
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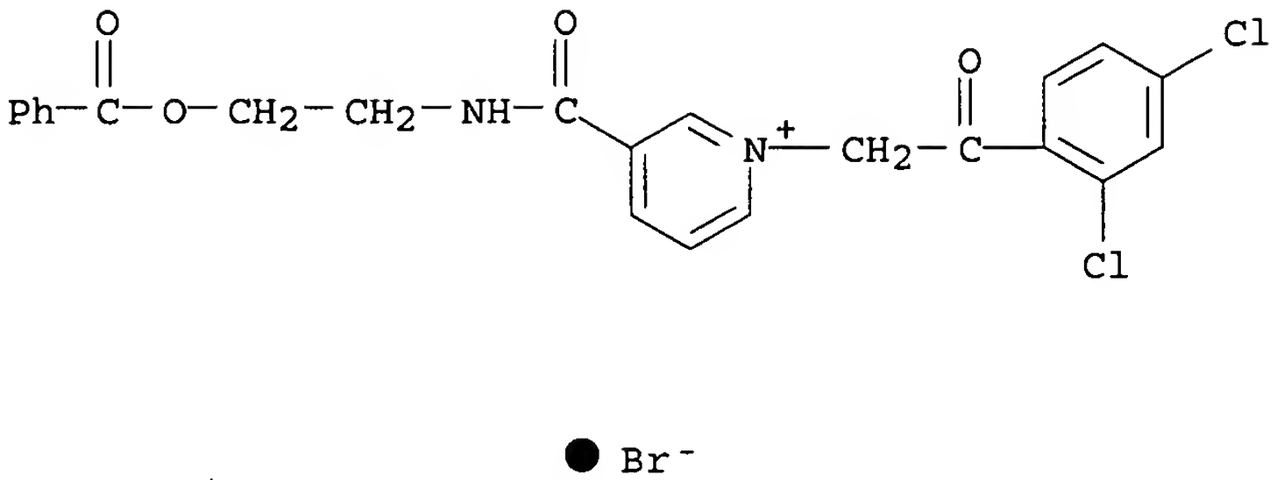
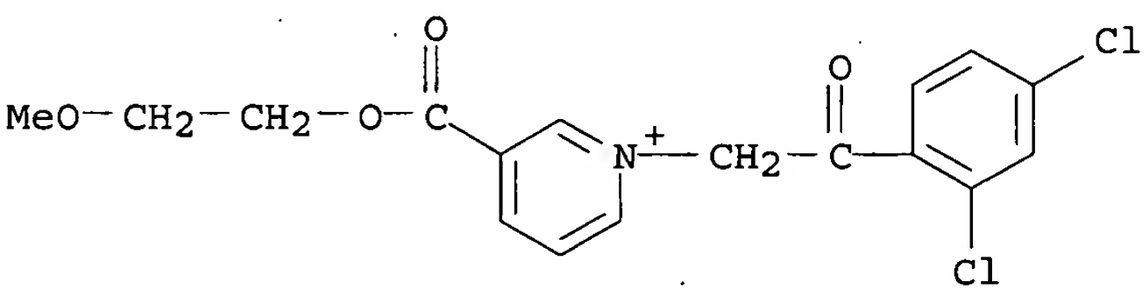


● Br^-

RN 357625-28-6 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[(2-methoxyethoxy)carbonyl]-, bromide (9CI) (CA INDEX NAME)



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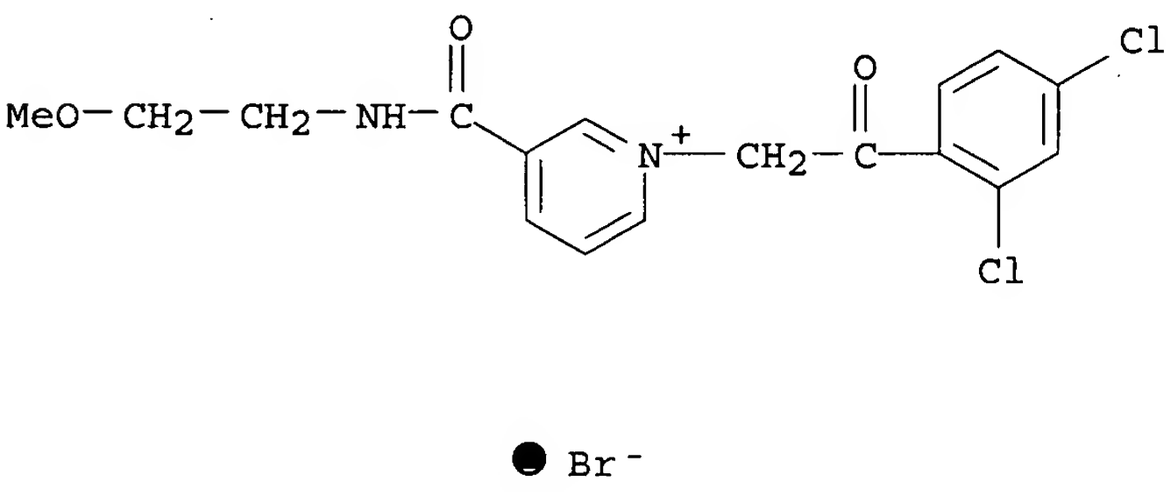
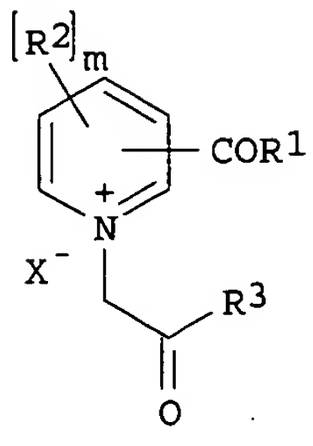
RN 357625-43-5 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[(2-methoxyethyl)amino]carbonyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

L16 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2003 ACS
GI



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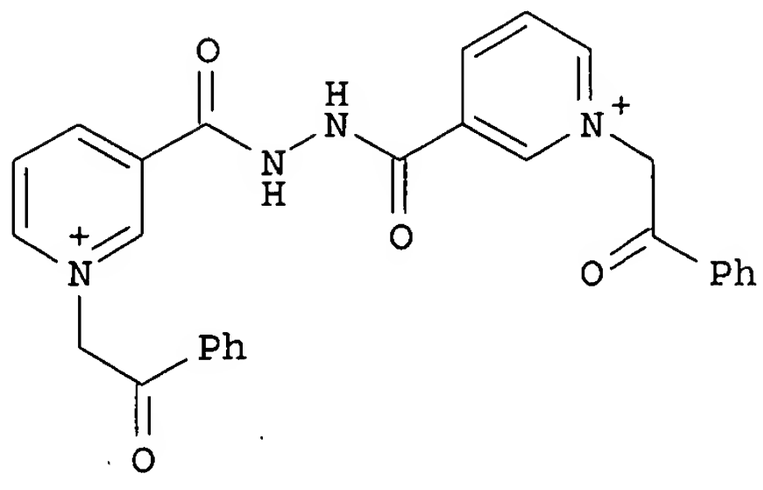


II

AB The title compds. [I; R1 = (un)substituted hydrazino, 2-benzyloxyethoxy, 2-benzyloxyethylamino, etc.; R2 = halo, NO2, alkyl, etc.; R3 = 2-thienyl, phenylamino, Ph, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2; with the provisos], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. and formulated. Thus, reacting N,N'-bis-(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II.2Br- which showed 13% AGE breakage at 5 mM. Also disclosed is a method of treatment of a diabetic patient by administering the compds. as defined above, either singly or in combination with drugs for antidiabetic therapy.

ACCESSION NUMBER: 2002:770131 CAPLUS
DOCUMENT NUMBER: 137:279097
TITLE: Preparation of novel pyridinium compounds for the management of aging-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals, Ltd., India
SOURCE: U.S., 10 pp., Cont.-in-part of WO 2001 25,208.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6462057	B1	20021008	US 2000-598410	20000621
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2001018524	A1	20010830	US 2001-801778	20010309

US 2003032660	A1	20030213	US 2001-939702			20010828
US 2002103228	A1	20020801	US 2001-995731			20011129
PRIORITY APPLN. INFO.:			IN	1999-CA828	A	19991006
			WO	1999-IB1683	A2	19991015
			IN	1999-CA827	A	19991006
			WO	1999-IB1687	A1	19991015
			US	2000-590143	A2	20000609
			US	2000-598410	A2	20000621
			US	2001-801778	B2	20010309
			US	2001-939702	A1	20010828

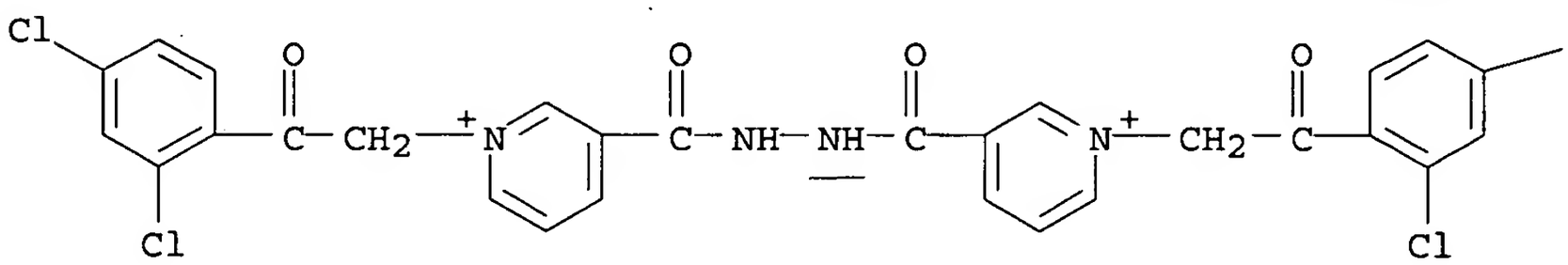
OTHER SOURCE(S): MARPAT 137:279097

IT **333797-92-5P 333797-97-0P 357625-28-6P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel pyridinium compds. for treating diseases caused by diabetes and aging related complications)

RN 333797-92-5 CAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-, dibromide (9CI) (CA INDEX NAME)

PAGE 1-A

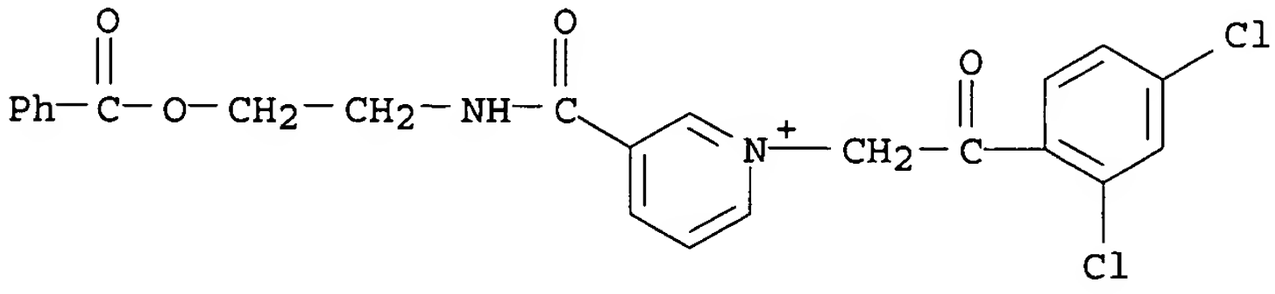


● 2 Br^-

PAGE 1-B

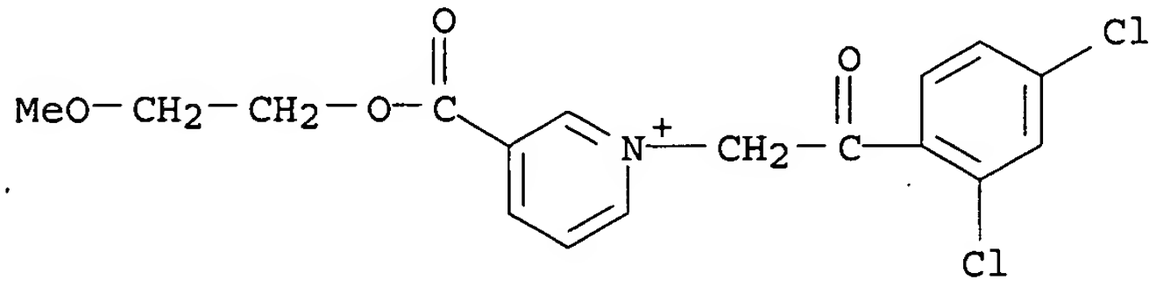
RN 333797-97-0 CAPLUS

CN Pyridinium, 3-[[[2-(benzoyloxy)ethyl]amino]carbonyl]-1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)



Br^-

RN 357625-28-6 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[(2-methoxyethoxy)carbonyl]-, bromide (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS

AB Disclosed are novel pyridinium compds. useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth. Thus, N-benzenesulfonylisonicotinic hydrazide and EtO2CCH2Br were refluxed 24 h in Me2CHOH to give 60% 1-(2-ethoxy-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium bromide. Title compds. showed 14-95.36% AGE-breaking activity at 1-25 mM.

ACCESSION NUMBER: 2002:733981 CAPLUS
DOCUMENT NUMBER: 137:247608
TITLE: Preparation of pyridinium compounds useful for the treatment of advanced glycation end product (AGE)-related diseases
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India
SOURCE: Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

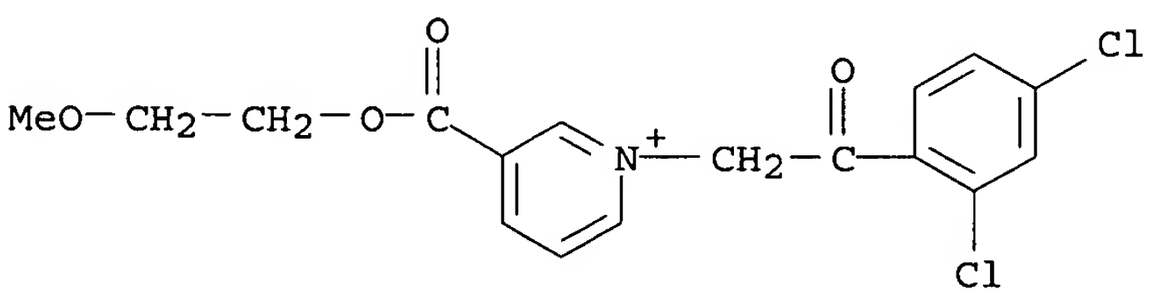
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1243581	A1	20020925	EP 2001-201057	20010321

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

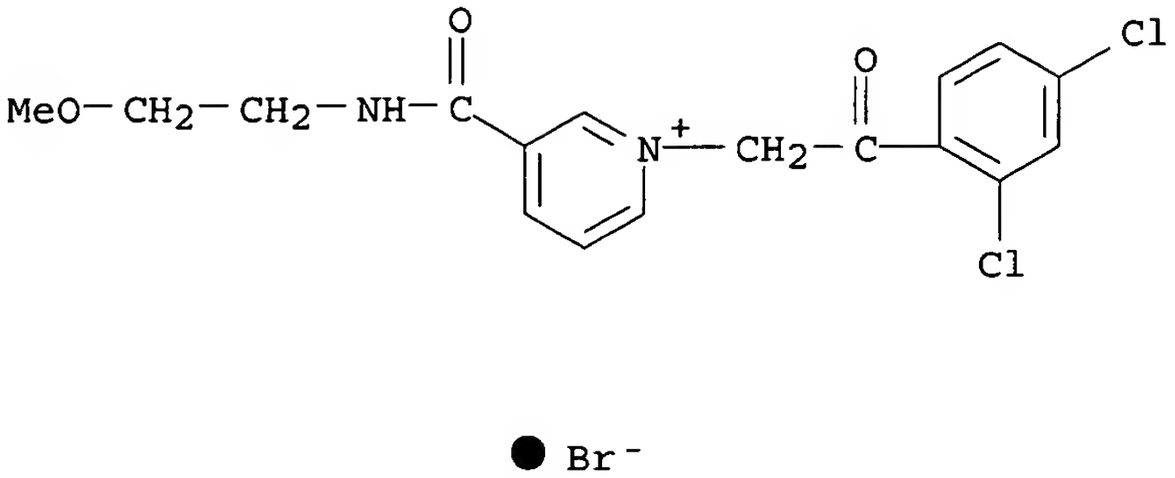
PRIORITY APPLN. INFO.: EP 2001-201057 20010321

IT **357625-28-6P 357625-43-5P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(claimed compd.; prepn. of pyridinium compds. useful for treatment of advanced glycation end product (AGE)-related diseases)

RN 357625-28-6 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[(2-methoxyethoxy)carbonyl]-, bromide (9CI) (CA INDEX NAME)



RN 357625-43-5 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[(2-methoxyethyl)amino]carbonyl]-, bromide (9CI) (CA INDEX NAME)



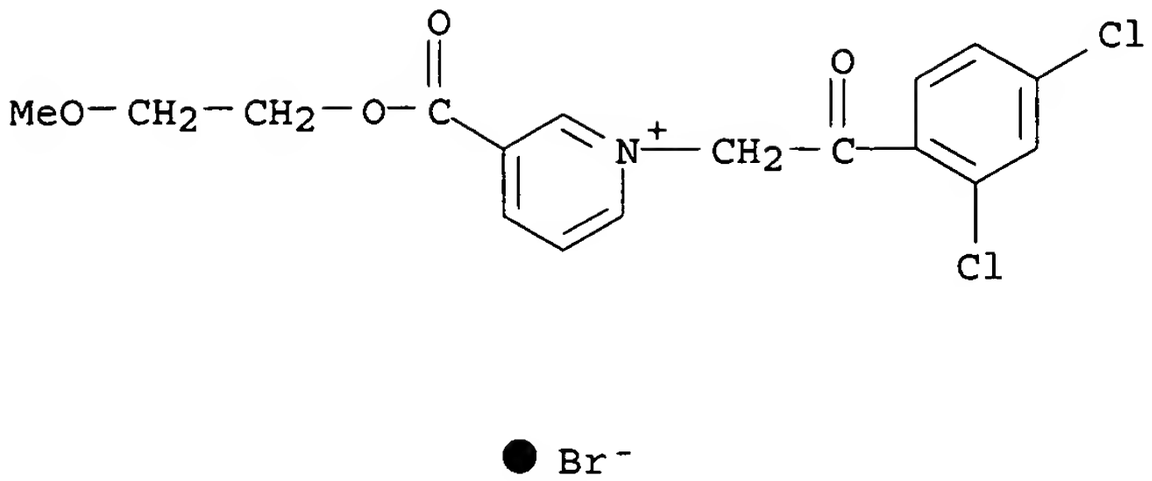
● Br^-

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

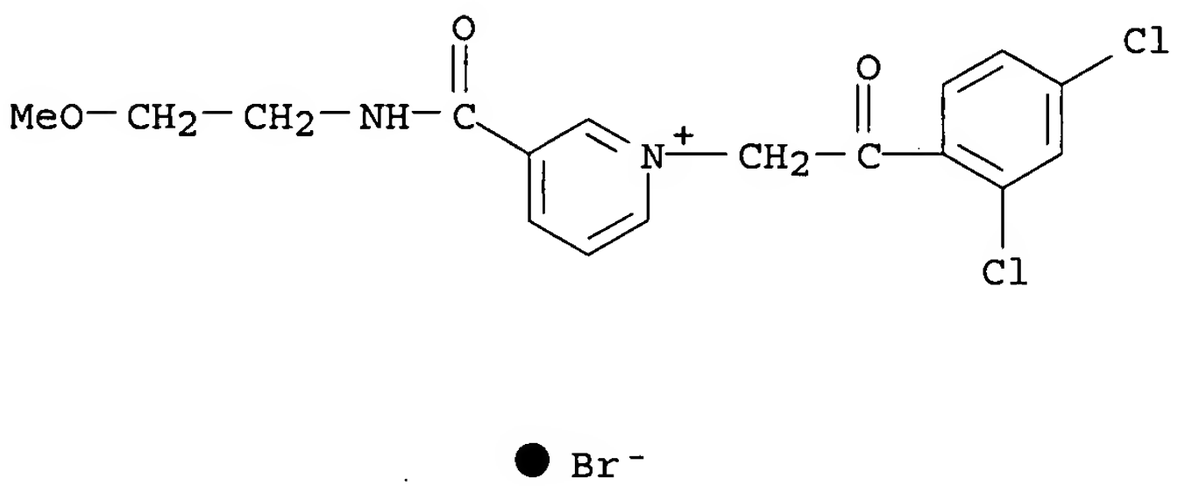
L16 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS
AB N,N'-bis[3-carbonyl-1-(2-thien-2'-yl-2-oxoethyl)pyridinium]hydrazine dichloride, N,N'-bis[3-carbonyl-1-(2-cyclopropylamino-2-oxoethyl)pyridinium]hydrazine dichloride, 1-(2-phenylamino-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium chloride or its pharmaceutically acceptable salt, 1-[2-(2',4'-dichlorophenyl)-2-oxoethyl]-3-[2-(methoxy)ethyloxycarbonyl]pyridinium bromide or its pharmaceutically acceptable salt, 1-(2-phenylamino-2-oxoethyl)-3-[(benzoyloxy)ethylaminocarbonyl]pyridinium chloride or its pharmaceutically acceptable salt, and other oxoethylpyridinium halides are prepd. The compds. are useful for treatment of senile disease and complication of diabetes as renal disease, nerve damage, retinopathy, atherosclerosis, microangiopathy, endodermis function disorder, and teeth discoloration. N-(benzenesulfonyl)isonicotinic acid hydrazide (1.0 g) was treated with 0.6 g Et bromoacetate in iso-PrOH under reflux for 24 h to give 1.05 g 1-(2-ethoxy-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium bromide. The compds. showed good breaking activity. at 1-20 mM concn.
ACCESSION NUMBER: 2002:727098 CAPLUS
DOCUMENT NUMBER: 137:247606
TITLE: Preparation of oxoethylpyridinium halides having AGE breaking activity for treatment of senile disease and complication of diabetes
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Trent Pharmaceuticals Limited., India
SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002275158	A2	20020925	JP 2001-81819	20010322

PRIORITY APPLN. INFO.: JP 2001-81819 20010322
OTHER SOURCE(S): MARPAT 137:247606
IT **357625-28-6P**, 1-[2-(2',4'-Dichlorophenyl)-2-oxoethyl]-3-[2-(methoxy)ethyloxycarbonyl]pyridinium bromide **357625-43-5P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of oxoethylpyridinium halides having AGE breaking activity for treatment of senile disease and complication of diabetes)
RN 357625-28-6 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[(2-methoxyethoxy)carbonyl]-, bromide (9CI) (CA INDEX NAME)



RN 357625-43-5 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[(2-methoxyethyl)amino]carbonyl]-, bromide (9CI) (CA INDEX NAME)



L16 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS

AB The title compds. YAr+X- [I; Ar = 5-6 membered heteroaryl ring having a first ring N atom and optionally second or third ring N atoms, with the remaining ring atoms being C, O, or S, (provided the first N atom of Ar is a quaternary N and Ar is not thiazolium, oxazolium or imidazolium); Y is substituted on the first ring N atom (with the proviso that if Ar is pyrazole, indazole, triazole, benzotriazole, the second ring N atom is substituted with alkyl, alkoxycarbonylalkylene, aryl, etc.); Ar can be substituted on ring C atoms with aryl, carbamoyl, aralkyl, etc.; Y = CHR5R6 (R5 = H, alkyl, cycloalkyl, etc.; R6 = H, alkyl, alkenyl, etc.); X = a pharmaceutically acceptable anion, which may be absent if the compd. provides a neutralizing salt], useful in treating or ameliorating certain fibrotic diseases or other indications linked to or assocd. with the formation of excess collagen, in an animal, including a human, were prepd. Thus, refluxing 2-aminothiadiazole with 2-bromoacetamide in MeCN for 5 h afforded 5-amino-3-carbamoylmethyl-[1,3,4]thiadiazolium bromide. Assays to det. the activity of compds. I in breaking, reversing or inhibiting the formation of advanced glycosylation end products (AGEs) or AGE-mediated cross-links was presented (no data).

ACCESSION NUMBER: 2002:675770 CAPLUS
DOCUMENT NUMBER: 137:216955
TITLE: Method for treating fibrotic diseases or other indications using thiadiazolium, pyridinium and pyrimidinium salts
INVENTOR(S): Wagle, Dilip; Gall, Martin; Bell, Stanley C.; Lavoie, Edmond J.
PATENT ASSIGNEE(S): Alteon, Inc., USA
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002067851	A2	20020906	WO 2001-US49833	20011228
WO 2002067851	A3	20030206		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002183365	A1	20021205	US 2001-36857		20011231

applicant

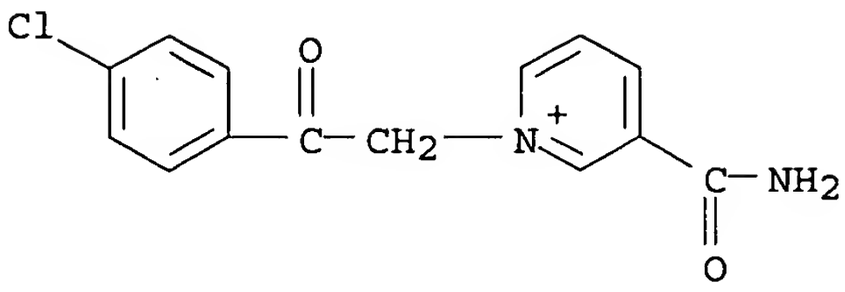
PRIORITY APPLN. INFO.:
US 2000-259294P P 20001229
US 2001-259238P P 20010102
US 2001-296246P P 20010606

OTHER SOURCE(S): MARPAT 137:216955

IT **454704-88-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of thiadiazolium, pyridinium and pyrimidinium salts for treating fibrotic diseases)

RN 454704-88-2 CAPLUS
CN Pyridinium, 3-(aminocarbonyl)-1-[2-(4-chlorophenyl)-2-oxoethyl]-, chloride

(9CI) (CA INDEX NAME)



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546/318
514/355
514/356

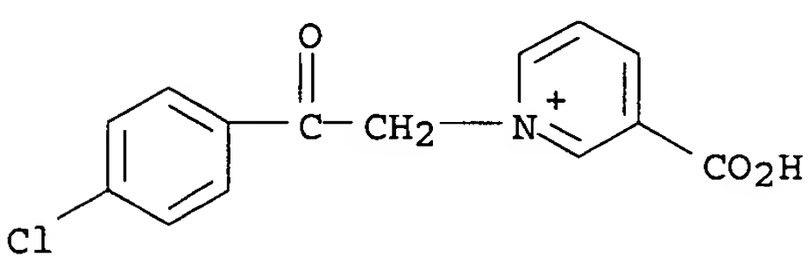
L16 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS

AB Thirteen pyridine-3-carboxylic acid salt derivs. with various substituted phenacyl residues were prepd. and their cytotoxicity, antibacterial and antifungal activities tested. Compds. 5 and 11 proved to be active in the brine shrimp bioassay, compds. 7, 9-12 and 14 showed promising antibacterial activities, whereas none of the compds. tested against 15 fungal cultures proved to be active. Extensive spectroscopic techniques were employed to confirm the structure of the synthetic products.

ACCESSION NUMBER: 2002:393054 CAPLUS
DOCUMENT NUMBER: 137:122116
TITLE: Syntheses, antibacterial, cytotoxic and antifungal effects of new 3-carboxy-1-phenacylpyridinium salts
AUTHOR(S): Khan, Khalid Mohammed; Saify, Zafar Saeed; Shah, Syed Tasadaque Ali; Ahmed, Mansoor; Saeed, Muhammad; Hayat, Safdar; Abbas, Muhammad; Voelter, Wolfgang
CORPORATE SOURCE: Husein Ebrahim Jamal (HEJ) Research Institute of Chemistry, International Center for Chemical Sciences, University of Karachi, Karachi, Pak.
SOURCE: Arzneimittel-Forschung (2002), 52(4), 286-293
CODEN: ARZNAD; ISSN: 0004-4172
PUBLISHER: Editio Cantor Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **444344-28-9P**
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(syntheses, antibacterial, cytotoxic and antifungal effects of new 3-carboxy-1-phenacylpyridinium salts)

RN 444344-28-9 CAPLUS
CN Pyridinium, 3-carboxy-1-[2-(4-chlorophenyl)-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS

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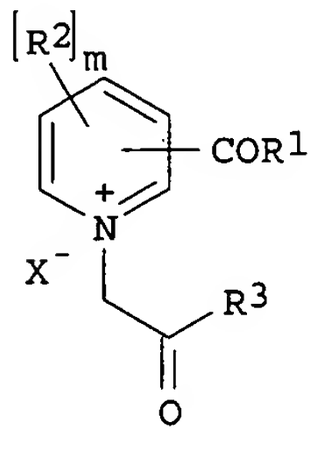

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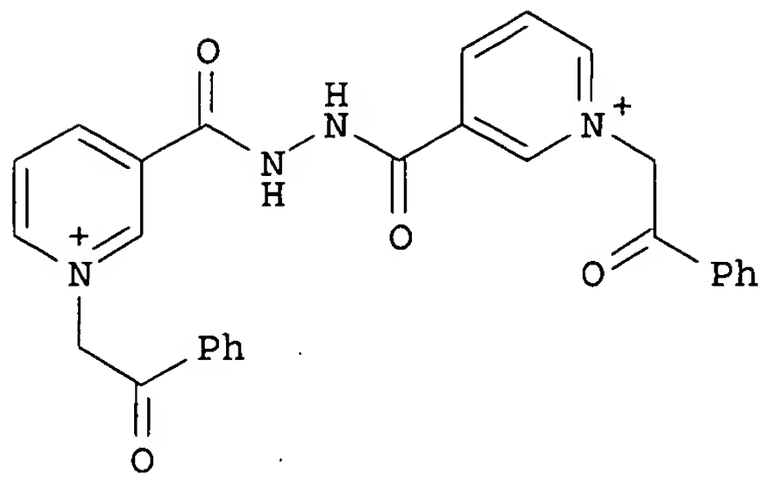


II

AB The title compds. [I; R1 = (un)substituted hydrazino, 2-benzyloxyethoxy, 2-benzyloxyethylamino, etc.; R2 = halo, NO2, alkyl, etc.; R3 = 2-thienyl, phenylamino, Ph, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. Thus, reacting N,N'-bis-(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II.2Br- which showed 13% AGE breakage at 5 mM. Also disclosed is a method of treatment of a diabetic patient by administering the compds. as defined above, either singly or in combination with drugs for antidiabetic therapy.

ACCESSION NUMBER: 2001:643433 CAPLUS
DOCUMENT NUMBER: 135:210943
TITLE: Preparation of novel pyridinium compounds for the management of aging-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): India
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 598,410.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001018524	A1	20010830	US 2001-801778	20010309
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6462057	B1	20021008	US 2000-598410	20000621

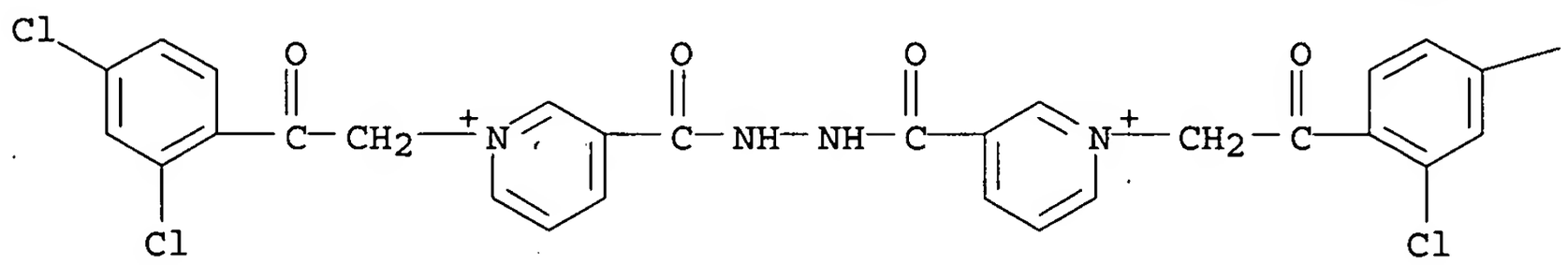
US 2003032660	A1	20030213	US 2001-939702			20010828
US 2002103228	A1	20020801	US 2001-995731			20011129
PRIORITY APPLN. INFO.:			IN 1999-CA828		A	19991006
			WO 1999-IB1683		A2	19991015
			US 2000-598410		A2	20000621
			IN 1999-CA827		A	19991006
			WO 1999-IB1687		A1	19991015
			US 2000-590143		A2	20000609
			US 2001-801778		B2	20010309
			US 2001-939702		A1	20010828

OTHER SOURCE(S): MARPAT 135:210943

IT **333797-92-5P 333797-97-0P 357625-28-6P**
357625-43-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel pyridinium compds. for the management of aging-related and diabetic vascular complications)

RN 333797-92-5 CAPLUS
CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-, dibromide (9CI) (CA INDEX NAME)

PAGE 1-A



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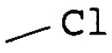
PAGE 1-B



RN 333797-97-0 CAPLUS
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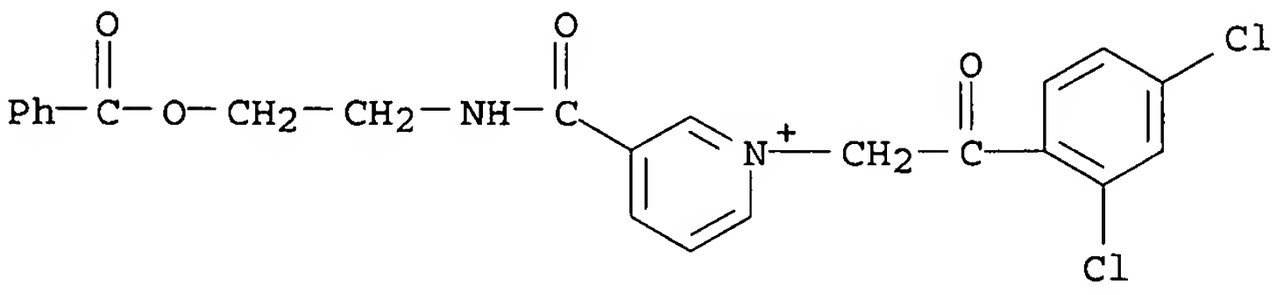

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RN 357625-28-6 CAPLUS
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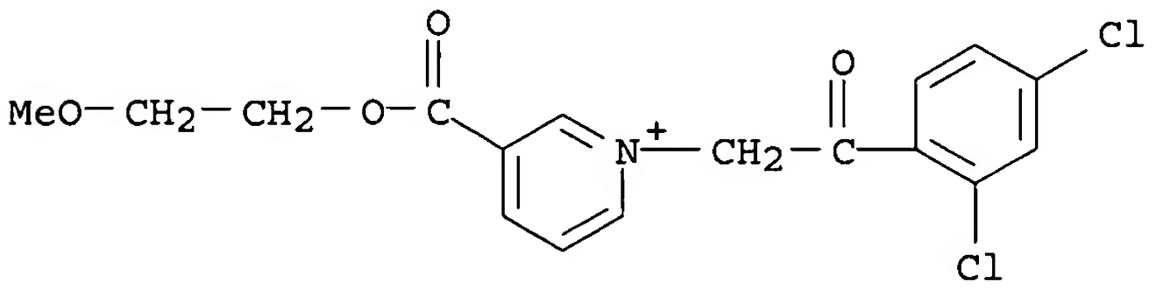
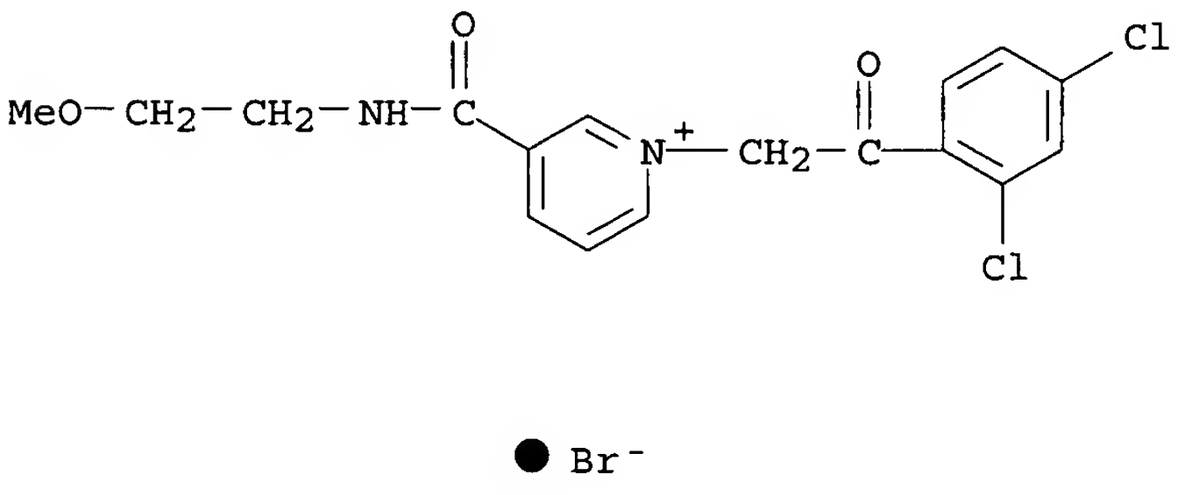
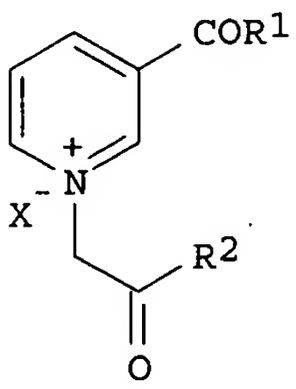


RN 357625-43-5 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[(2-methoxyethyl)amino]carbonyl]-, bromide (9CI) (CA INDEX NAME)



L16 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS
GI



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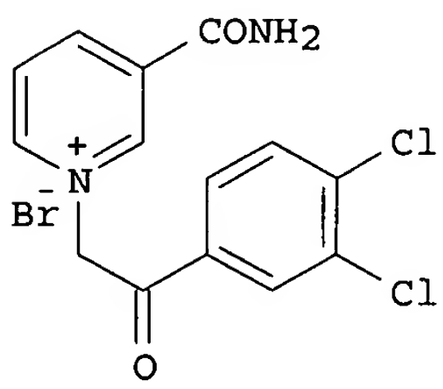


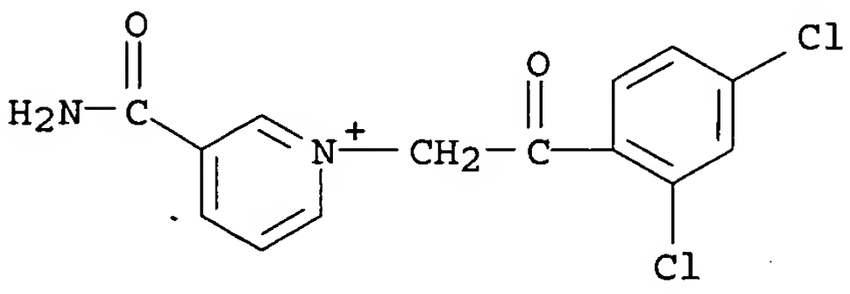
II

AB The title compds. [I; R1 = YR3 (wherein Y = O, NH; R3 = H, alkyl, aryl); R2 = alkyl, O(alkyl), aryl, etc.; X = halide, acetate, perchlorate], useful for the management of diabetes and aging-related vascular complications, and particularly in the treatment of complications of diabetes mellitus and other aging-related conditions including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. conditions and discoloration of teeth by breaking preformed AGE, were prepd. and formulated. Thus, reacting nicotinamide with 2,4-dichlorophenacyl bromide in refluxing PhMe afforded 39% the bromide II. Biol. data for compds. I (such as % AGE breaking activity) was given. The invention further discloses a method of treatment of a diabetic patient by administering the compds. I , either singly or in combination with other drugs for antidiabetic therapy.

ACCESSION NUMBER: 2001:265393 CAPLUS
DOCUMENT NUMBER: 134:280716
TITLE: Preparation of pyridinium derivatives for the treatment of diabetic and aging-related vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): India
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025209	A1	20010412	WO 1999-IB1687	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9959944	A1	20010510	AU 1999-59944	19991015
EP 1220843	A1	20020710	EP 1999-974071	19991015
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 9915962	A	20030107	BR 1999-15962	19991015
JP 2003511370	T2	20030325	JP 2001-528155	19991015

US 2002103228 A1 20020801 US 2001-995731 20011129
PRIORITY APPLN. INFO.: IN 1999-CA827 A 19991006
IN 1999-CA828 A 19991006
WO 1999-IB1683 A2 19991015
WO 1999-IB1687 W 19991015
US 2000-590143 A2 20000609
US 2000-598410 A2 20000621
US 2001-801778 A2 20010309
US 2001-939702 A1 20010828
OTHER SOURCE(S): MARPAT 134:280716
IT **333797-24-3P 333797-25-4P 333797-33-4P**
333797-38-9P 333797-39-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of pyridinium derivs. for the treatment of diabetic and aging-related vascular complications)
RN 333797-24-3 CAPLUS
CN Pyridinium, 3-(aminocarbonyl)-1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)



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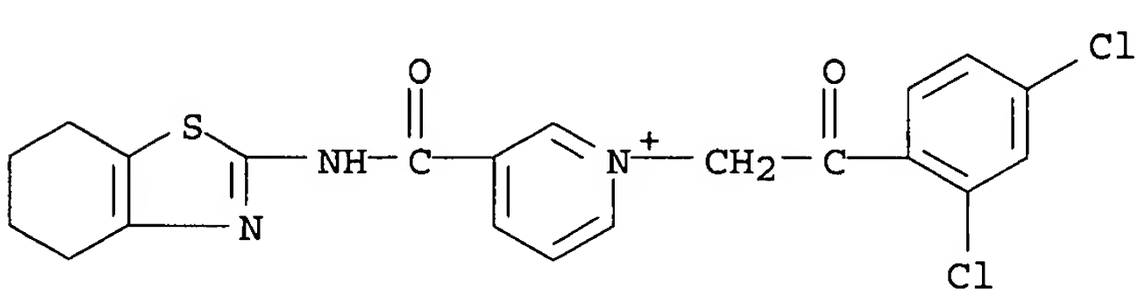
RN 333797-25-4 CAPLUS
CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[(4,5,6,7-tetrahydro-2-benzothiazolyl)amino]carbonyl]-, bromide (9CI) (CA INDEX NAME)



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RN 333797-33-4 CAPLUS
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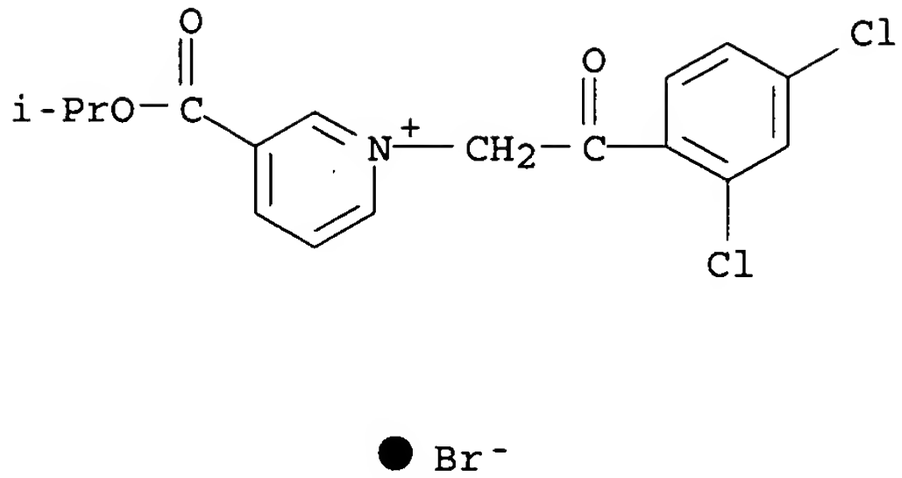

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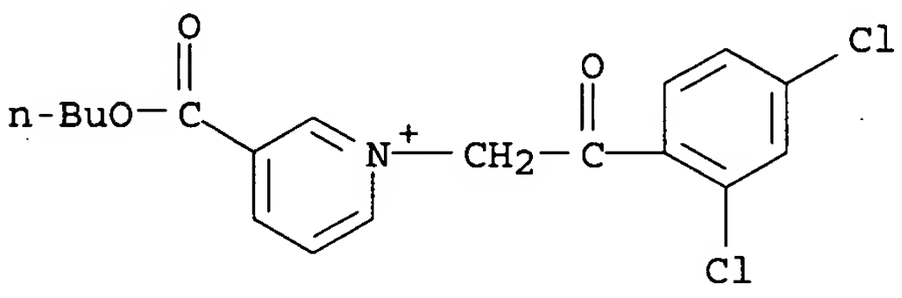

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RN 333797-39-0 CAPLUS
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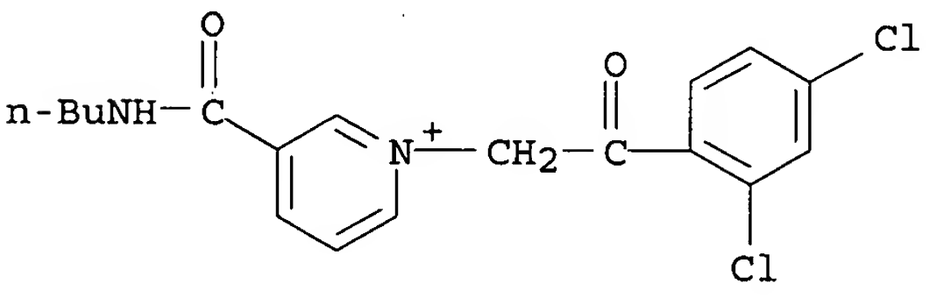

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REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2003 ACS
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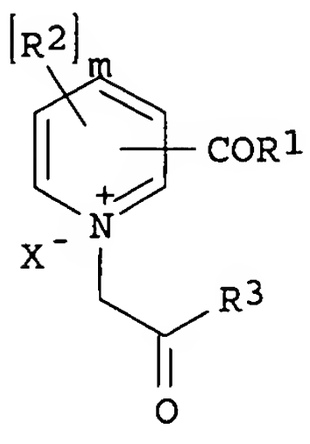

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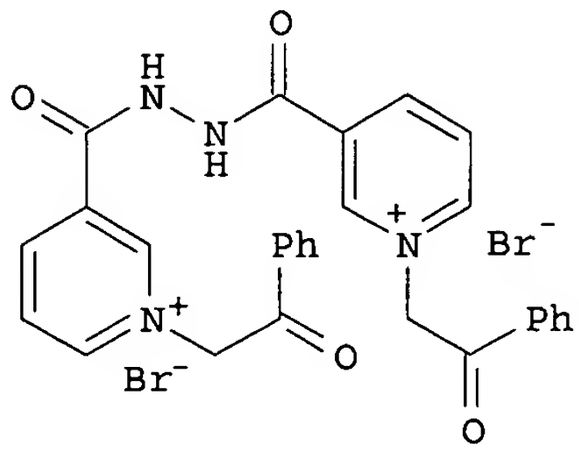


II

AB The title compds. [I; R1 = R4R5, NR7NR7R9; R2 = F, Cl, Br, etc.; R3 = R7, OR7, etc.; R4 = NR7R6O, NR7R6NR7, OR6O, etc.; R5 = alkyl, aryl, heteroaryl, etc.; R6 = alkyl; R7 = H, alkyl, aryl, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. and formulated. Thus, reacting N,N'-bis(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II which showed 13% AGE breakage at 5 mM. The invention further discloses a method of treatment of a diabetic patient by administering the compds. I, either singly or in combination with drugs for antidiabetic therapy.

ACCESSION NUMBER: 2001:265392 CAPLUS
DOCUMENT NUMBER: 134:280715
TITLE: Preparation of novel pyridinium derivatives for the management of aging-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): India
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2344144	AA	20010412	CA 1999-2344144	19991015
AU 9959942	A1	20010510	AU 1999-59942	19991015
BR 9913746	A	20020423	BR 1999-13746	19991015

EP 1222171 A1 20020717 EP 1999-973986 19991015
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
JP 2003511369 T2 20030325 JP 2001-528154 19991015
US 6462057 B1 20021008 US 2000-598410 20000621
US 2001018524 A1 20010830 US 2001-801778 20010309
US 2003032660 A1 20030213 US 2001-939702 20010828
US 2002103228 A1 20020801 US 2001-995731 20011129

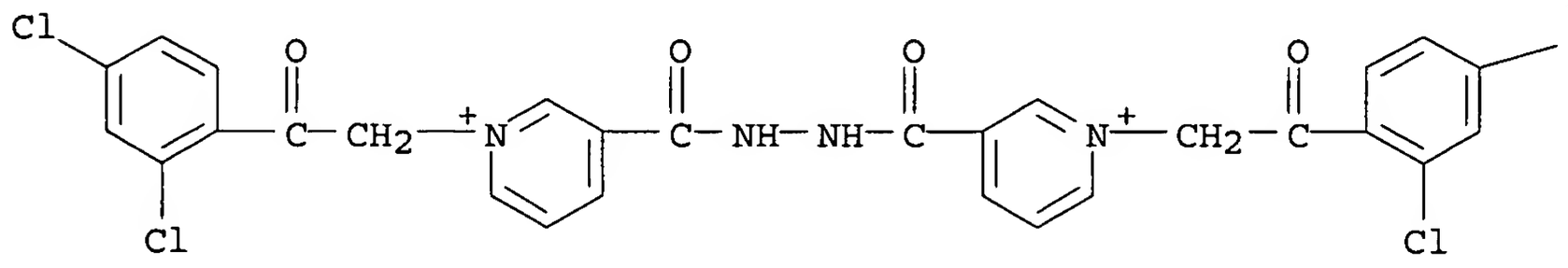
PRIORITY APPLN. INFO.:
IN 1999-CA828 A 19991006
IN 1999-CA827 A 19991006
WO 1999-IB1683 W 19991015
WO 1999-IB1687 A1 19991015
US 2000-590143 A2 20000609
US 2000-598410 A2 20000621
US 2001-801778 B2 20010309
US 2001-939702 A1 20010828

OTHER SOURCE(S): MARPAT 134:280715

IT **333797-92-5P 333797-97-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of pyridinium derivs. for the management of aging-related and diabetic vascular complications)

RN 333797-92-5 CAPLUS
CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-, dibromide (9CI) (CA INDEX NAME)

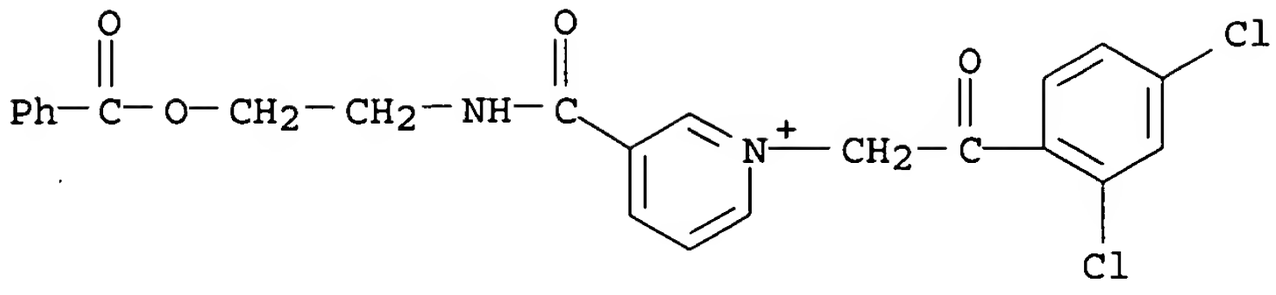
PAGE 1-A



●2 Br^-

PAGE 1-B

RN 333797-97-0 CAPLUS
CN Pyridinium, 3-[[[2-(benzoyloxy)ethyl]amino]carbonyl]-1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)



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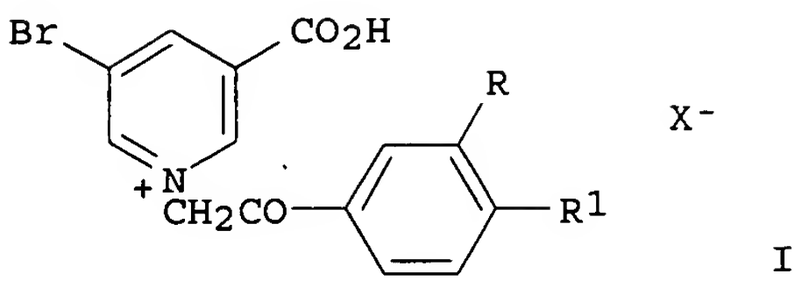
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

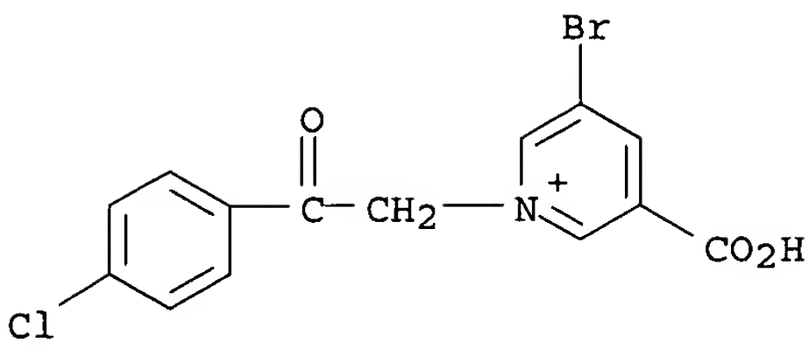
L16 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2003 ACS
GI



I

AB The studies presented here deal with the synthetic modification of 5-bromonicotinic acid on its nitrogen nucleus. The synthetic transformations were carried out by reacting equimolar amts. of 5-bromonicotinic acid and phenacyl halides in acetone. A range of phenacyl halides were used with the objective of getting a variety of quaternary ammonium salts of 5-bromononicotinic acid derivs. as multipurpose biol. active compds. Twelve quaternary ammonium salts of 5-bromonicotinic acid have been synthesized and tested for cytotoxicity, antibacterial and antifungal activities. These compds. showed promising cytotoxicity against Artemia salina. Two compds., 3-carboxy-1-(4-methylphenacyl)-5-bromopyridinium bromide and 3-carboxy-1-(4-nitrophenacyl)-5-bromopyridinium bromide, were highly active against Gram-pos. and Gram-neg. bacteria among all the tested compds. All the compds. were examd. for antifungal activity against fifteen fungal cultures, but none of these compds. proved to be effective against these fungi. The parent compd. and its derivs. were also examd. for their effect on mean arterial blood pressure in anesthetized rats. Compds. I (R = R1 = OH, X = Cl; R = H, R1 = X = Br) were found to be twofold more active than the parent compd. The rest of the products showed blood pressure lowering effects comparable to the parent compd. All compds. were characterized via elemental anal. and UV, IR, mass and 1H NMR spectroscopy.

ACCESSION NUMBER: 1999:665575 CAPLUS
DOCUMENT NUMBER: 132:22850
TITLE: Syntheses of selected quaternary phenacylbromopyridinium compounds and their biological evaluation
AUTHOR(S): Khan, Khalid M.; Saify, Zafar S.; Zeeshan; Khan, Abduliah; Ahmed, Mansoor; Saeed, Muhammed; Abdel-Jalil, Raid J.; Grubler, Gerald; Voelter, Wolfgang
CORPORATE SOURCE: International Cent. Chem. Sci., HEJ Res. Inst. Chem., Univ. Karachi, Karachi, 75270, Pak.
SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences (1999), 54(9), 1210-1218
CODEN: ZNBSEN; ISSN: 0932-0776
PUBLISHER: Verlag der Zeitschrift fuer Naturforschung
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **251934-56-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(quaternary phenacylbromopyridinium compds. and their biol. evaluation)
RN 251934-56-2 CAPLUS
CN Pyridinium, 3-bromo-5-carboxy-1-[2-(4-chlorophenyl)-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)



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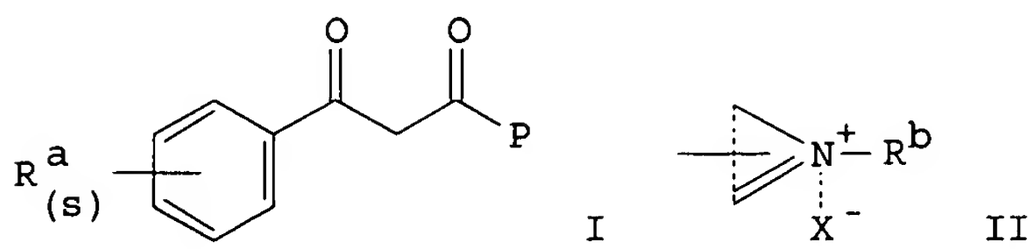
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS



I II

AB The material comprises a 1,3-diketone deriv. I (Ra = NH2, C1-12-group-substituted amino, cyclic amino, alkyl, halo-substituted alkyl, alkoxy, mercaptoalkoxy, halo, COOH, alkoxycarbonyl, C1-12 alkanoyloxy, NO2, CN, alkanoylamido, CHF3, sulfonyl; P = II ; Rb = C1-15 alkyl, halo-substituted alkyl, NH2- or OH-substituted alkyl, arom. Me, arom. COOH; X = F, Br, Cl, I, PF6, SbF6, AsF6, BF4, ClO4, IO3, CH3COO, CF3COO, C2F5COO, benzoic acid residuals, benzenesulfonic acid residuals). The materials exhibit large 2nd-harmonic generations, high Vickers hardnesses, high m.p., low vapor pressures, and long-life stabilities in air.

ACCESSION NUMBER: 1994:231408 CAPLUS
DOCUMENT NUMBER: 120:231408
TITLE: Nonlinear optical organic materials
INVENTOR(S): Nakamura, Satoshi; Imahashi, Satoshi
PATENT ASSIGNEE(S): Toyo Boseki, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05072582	A2	19930326	JP 1991-259754	19910910

PRIORITY APPLN. INFO.: JP 1991-259754 19910910
OTHER SOURCE(S): MARPAT 120:231408

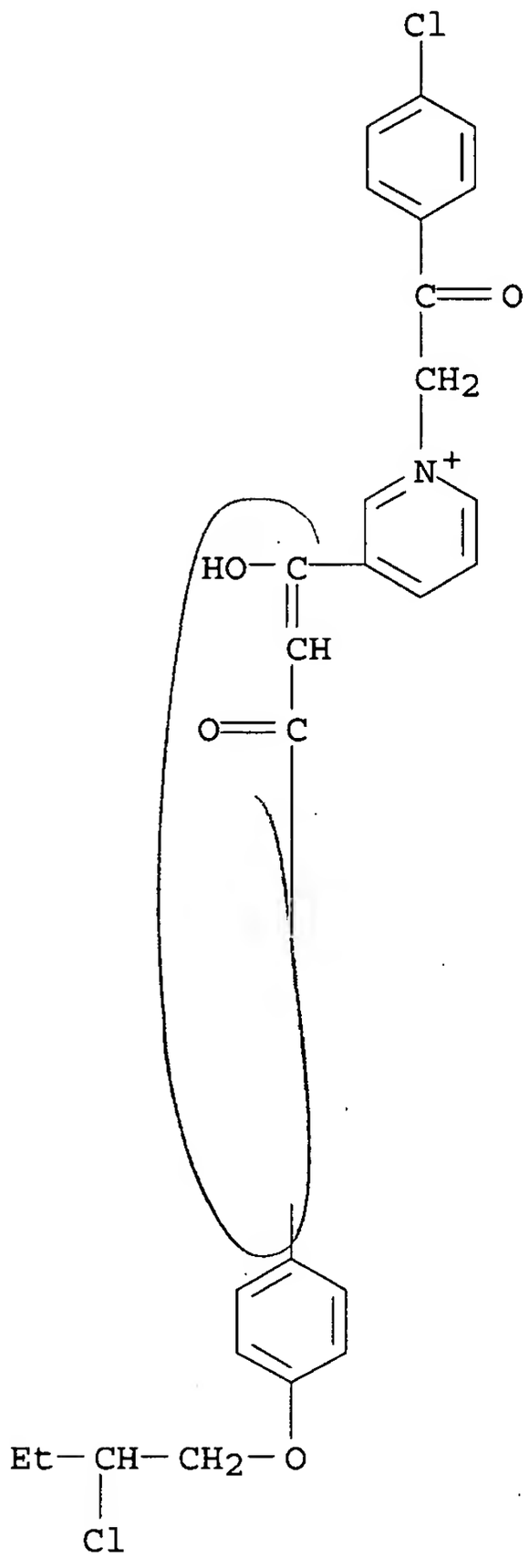
IT **151482-68-7**
RL: USES (Uses)
(optical second harmonic generators)

RN 151482-68-7 CAPLUS
CN Pyridinium, 3-[3-[4-(2-chlorobutoxy)phenyl]-1-hydroxy-3-oxo-1-propenyl]-1-[2-(4-chlorophenyl)-2-oxoethyl]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 151482-67-6
CMF C26 H24 Cl2 N O4

PAGE 1-A



PAGE 2-A

CM 2

CRN 16919-18-9
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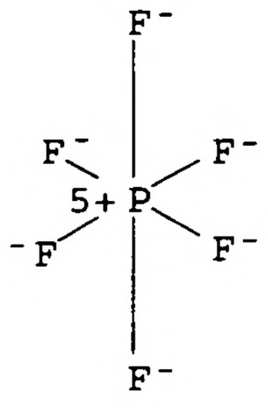
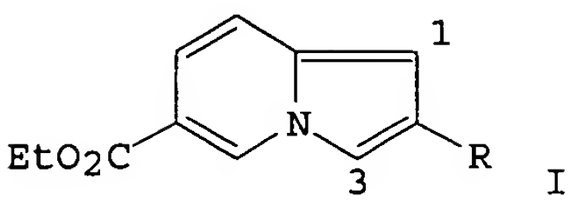

F-
F-
F-
5+
P
-F
F-
F-

L16 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2003 ACS
GI



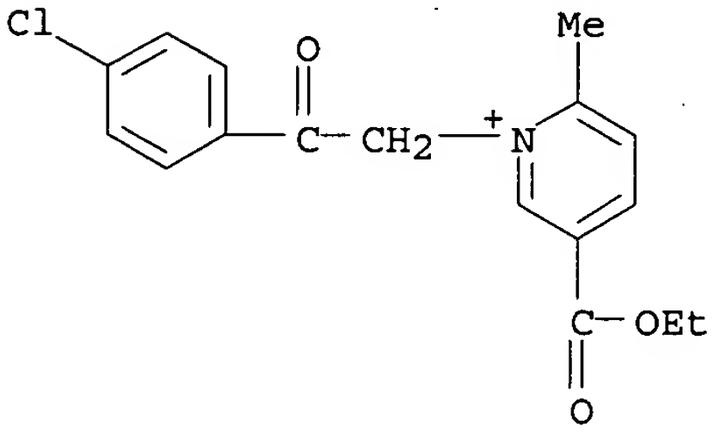
I

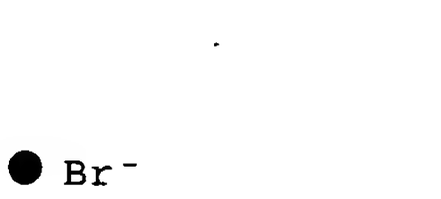
AB Condensation-cyclization of Et 6-methyl-3-pyridinecarboxylate with RCOCH2Br (R = Me, Ph, substituted phenyl) gave the title indolizines I, which underwent electrophilic substitution reactions to give 3-mono- and 1,3-disubstituted derivs. of I. Thus, Vilsmeier formylation of I (R = Me) gave 47% of the corresponding 1,3-diformyl deriv., whereas I (R = Ph) gave 90.5% of the corresponding 3-formyl deriv.

ACCESSION NUMBER: 1976:421063 CAPLUS
DOCUMENT NUMBER: 85:21063
TITLE: Indolizines. II. Synthesis and properties of 2-methyl(aryl)-6-ethoxycarbonylindolizines
AUTHOR(S): Loseva, T. S.; Yanina, A. D.; Mikhlina, E. E.; Yakhontov, L. N.
CORPORATE SOURCE: Vses. Nauchno-Issled. Khim.-Farm. Inst. im. Ordzhonikidze, Moscow, USSR
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1976), (2), 209-14
CODEN: KGSSAQ; ISSN: 0132-6244
DOCUMENT TYPE: Journal
LANGUAGE: Russian

IT **59603-51-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)

RN 59603-51-9 CAPLUS
CN Pyridinium, 1-[2-(4-chlorophenyl)-2-oxoethyl]-5-(ethoxycarbonyl)-2-methyl-, bromide (9CI) (CA INDEX NAME)





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=> d his

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     FILE 'REGISTRY' ENTERED AT 14:32:27 ON 17 APR 2003
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L2          50 S L1
L3             STRUCTURE UPLOADED
L4          50 S L3
L5             STRUCTURE UPLOADED
L6          50 S L5
L7             STRUCTURE UPLOADED
L8             STRUCTURE UPLOADED
L9          24 S L8
L10            STRUCTURE UPLOADED
L11         11 S L10
L12        144 S L10 FUL

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L13         97 S L12

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L14            STRUCTURE UPLOADED
L15         26 S L14 FUL  SUB=L12

     FILE 'CAPLUS' ENTERED AT 14:51:45 ON 17 APR 2003
L16         12 S L15

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